February 17, 2021

U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 7227
(SIXTEENTH REVISION)

EXPIRATION DATE: 2025-01-31

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Chart Inc.
New Prague, MN

2. PURPOSE AND LIMITATIONS:

a. This special permit authorizes the manufacture, mark, sale, and use of non-DOT specification portable tanks with pressure controlling valves set at 25 psig or less, to be used for the transportation in commerce of non-pressurized Division 2.2 cryogenic liquids. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.

b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.

c. In accordance with 49 CFR 107.107(a), party status may not be granted to a manufacturing permit. These packaging may be used in accordance with 49 CFR 173.22a.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.318 in that non-DOT specification portable tanks are not authorized, except as specified herein.

5. BASIS: This special permit is based on the application of Chart Inc. dated February 5, 2021 and submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Material Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
Nitrogen, refrigerated liquid *cryogenic liquid*	2.2	UN1977	N/A
Oxygen, refrigerated liquid (*cryogenic liquid*)	2.2	UN1073	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Packaging prescribed is a vacuum insulated non-DOT specification portable tank designed and constructed in accordance with Section VIII of the ASME Code as follows:

(1) The portable tank is skid mounted or enclosed in an ISO type frame. Design temperature is -320 °F for the inner tank and any part, valve or fitting that may come in contact with the lading. Inner tank material is SA 240 Type 304 stainless steel. Jacket material is SA 36 carbon steel or equivalent.

(2) Each portable tank must conform to one of Richmond Lox Equipment Company's specifications in the Appendix of this special permit and on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD). No new construction is authorized unless the tank design and construction conforms with paragraph 7.a.(3) below. The portable tank identified with serial number 8432 is authorized for oxygen service without a manhole, provided that its jacket is marked to indicate location of inspection opening on the tank.

(3) Tanks constructed after December 31, 1986, must conform to § 178.338 except:

(i) Impact test is not required.

(ii) § 178.338-10 does not apply.

(iii) Lifting lugs, framework and any anchoring to the inner tank or tank jacket must conform with § 178.338-13(a). A portable tank that meets the definition of "container" in 49 CFR 450(a)(3) must meet the requirements of 49 CFR Parts 450 through 453 and each tank design must be qualified in accordance with § 178.270-13(c).

(4) Drawings and calculations for each portable tank manufactured after December 31, 1986 must be submitted to the OHMSAPD prior to first shipment.

b. TESTING: Each portable tank must be reinspected and retested in accordance with § 180.605 as prescribed for DOT 51 specification portable tanks except as follows: portable tanks must be pressure tested at a test pressure of 14.7 psig plus one and one-fourth times the sum of the design pressure plus the static head once every 5 years.

c. OPERATIONAL CONTROLS:

(1) Each portable tank must be prepared and shipped as required in § 173.318, for MC 338 cargo tanks, as applicable for the lading. The portable tank may be equipped with road relief valves set to discharge at 25 psig or less and arranged to discharge as the pressure relief valves.

(2) No person may transport a charged portable tank unless the pressure of the lading is equal to or less than that used to determine the marked rated holding time and the OWTT is equal to or greater than the elapsed time between the start and termination of travel.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but receives a package covered by this special permit, may reoffer it for transportation provided no modification or

change is made to the package and it is offered for transportation in conformance with this special permit and the HMR.

c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Safety Approvals and Permits Division for a specific manufacturing facility.

e. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.

f. MARKING:

(1) "DOT-SP 7227" must replace the mark "MC 338".

(2) Each portable tank must be plainly marked on both sides near the middle in letters at least two inches high on a contrasting background, "DOT-SP 7227". In addition, each tank must be marked in accordance with § 172.326(a), except the maximum letter size must be four inches.

(3) The legend "One Way Travel Time (OWTT)_____Hours" must be marked on the shipping paper immediately after the container description. The OWTT is determined by the formula:

OWTT = MRHT – 24

g. New construction is not authorized.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicles, rail freight, and cargo vessel (See paragraph 10 for limitations).

10. MODAL REQUIREMENTS: Shipments by cargo vessel must conform with the following:

a. The provisions of § 176.76(g) apply. The portable tanks may not be overstowed with other containers or freight.

b. A portable tank transported aboard a cargo vessel may not be partially unloaded during any segment of transportation. A secondary stop valve must be provided outboard of each excess flow valve on tanks transported aboard a cargo vessel.

c. Each portable tank used to transport a cryogenic liquid aboard cargo vessels must be examined after each shipment to determine its actual holding time. If the examination indicates that the actual holding time is less than 90% of the marked rated holding time of the tank, the tank may not be refilled until it is restored to its marked rated holding time or tank is remarked with the reduced actual rated holding time determined by this examination.

d. A current copy of this special permit must be carried aboard each cargo vessel used to transport packages covered by this special permit.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)- "The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.

for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

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APPENDIX

SPECIFICATION AND DRAWINGS FOR PORTABLE TANKS (DOT-SP 7227)

Tank Model	PT-10-LN-SP	PT-19-LN-SP	PT-20-LN-SP	PT-22-LN-SP	SK-31-LO-SP
Design Pressure (MAWP)	43 psig	43 psig	43 psig	43 psig	244 psig
Water Capacity (gallons)	1060	1920	2045	2200	3126
General Arrangement Drawing	E24-193 Rev 6, or E74-152 Rev 3, D75-349 Rev 3, E-86-193 Rev 0, E74-194, Rev 6, E75-003, Rev 0 or D740194 Rev 8, E76-495 Rev 5E74-194 Rev 3, or E81-736 Rev 0				
Inner Vessel Drawing	D71-106 Rev 8, D77-80 Rev 0, or D74-240 Rev 0 or 074-240 Rev 2086-061 Rev 0 or 9 E74-196 Rev 3, 2, D72-415, Rev l, or B74-235 Rev 3				
Outer Vessel Drawing	D74-234 Rev l, B74-191 Rev 3 or B74-235, Rev 0 D74-235, Rev 3, C86-062, Rev 0, or 2 D74-191 Rev 3				
External Piping	E74-533 Rev 0 or E76-49 Rev, D74-536- Rev 3, D86-192 Rev 0				
Assembly Drawing	D72-482 Rev 4 or E76-320 Rev 8				